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Lee, Jian Ming

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35 40 45

Ala Thr Gly Lys Glu Phe Ala Cys Lys Ser Ile Leu Lys Xaa Leu Val
50 55 60

Thr Asp Asp Asp Val Glu Asp Val Arg Arg Glu Ile Gln Ile Met His
65 70 75 80

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Asp Ala Val Ala Val
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Leu Pro Ser Thr Pro Pro Arg Gln Gln Ala Gln Ala Gln Ala Gln Gln
        35                  40                  45

Val Gly Thr Pro Arg Arg Arg Gly Ser Lys Ser Gly Ser Thr Thr Pro
    50                  55                  60

Gly His Gln Thr Pro Gly Val Ala Trp Pro Ser Pro Tyr Pro Ser Gly
65                  70                  75                  80

Gly Ala Ser Pro Leu Pro Ala Gly Val Ser Pro Ser Pro Ala Arg Ser
                85                  90                  95

Thr Pro Arg Arg Phe Phe Lys Arg Pro Phe Pro Pro Pro Ser Pro Ala
            100                 105                 110

Lys His Ile Lys Ala Thr Leu Ala Lys Arg Leu Gly Gly Gly Lys Pro
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Lys Glu Gly Thr Ile Pro Glu Glu Gly Gly Val Gly Ala Gly Gly Gly
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Gly Gly Gly Ala Ala Asp Gly Ala Glu Thr Glu Arg Pro Leu Asp Lys
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Thr Phe Gly Phe Ser Lys Asn Phe Gly Ala Lys Tyr Glu Leu Gly Lys
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Lys Ile Leu Arg Ala Leu Ser Gly His Asn Asn Leu Val Lys Phe Tyr
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Asp Ala Cys Glu Asp Gly Leu Asn Val Tyr Ile Val Met Glu Leu Cys
245 250 255

Glu Gly Gly Glu Leu Leu Asp Arg Ile Leu Ala Arg Gly Gly Arg Tyr
260 265 270

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275 280 285

Ala Phe Cys His Leu Gln Gly Val Val His Arg Asp Leu Lys Pro Glu
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Asn Phe Leu Phe Thr Thr Arg Asp Glu Asn Ala Pro Met Lys Leu Ile
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325 330 335

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Leu Leu Cys Gly Ser Arg Pro Phe Trp Ala Arg Thr Glu Ser Gly Ile
370 375 380

Phe Arg Ser Val Leu Arg Ala Asp Pro Asn Phe Asp Asp Ser Pro Trp
385 390 395 400

Pro Thr Val Ser Ala Glu Ala Lys Asp Phe Val Lys Arg Phe Leu Asn
405 410 415

Lys Asp Tyr Arg Lys Arg Met Thr Ala Val Gln Ala Leu Thr His Pro
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Lys Leu Gln Phe Lys Leu Leu Glu Pro Arg Asp Gly Phe Val Ser Leu
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Asp Asn Phe Arg Thr Ala Leu Thr Arg Tyr Leu Thr Asp Ala Met Lys
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Arg Arg Met Asp Phe Glu Glu Phe Cys Ala Ala Ala Ile Ser Pro Tyr
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Gln Gln Phe Glu Gln Glu Gly Asn Arg Val Ile Ser Val Glu Glu Leu
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Ala Gln Glu Leu Asn Leu Ala Pro Thr His Tyr Ser Ile Val Gln Asp
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Glu Leu Gly Leu Asp Lys Ser Phe Gly Phe Ala Lys Gln Phe Ser Ala
65 70 75 80

His Tyr Glu Leu Ser Asp Glu Xaa Gly Arg Gly His Phe Gly Tyr Thr
85 90 95

Cys Ser Ala Lys Gly Lys Lys Gly Ala Phe Lys Gly Leu Asn Val Ala
100 105 110

Val Lys Val Ile Pro Lys Ala Lys Met Thr Thr Ala Ile Ala Ile Glu
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Asp Val Arg Arg Glu Val Lys Ile Leu Arg Ala Leu Thr Gly His Lys
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Phe Ser Ser Lys Glu Glu Asn Ser Pro Leu Lys Val Ile Asp Phe Gly
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Leu Ser Asp Phe Val Lys Pro Asp Glu Arg Leu Asn Asp Ile Val Gly
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Ser Ala Tyr Tyr Val Ala Xaa Glu Val Leu His Arg Ser Tyr Gly Thr
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Asn Gly Gln Ala Lys Gln Thr Ile Ser Tyr Met Ala Glu Arg Val Val
65                  70                  75                  80

Gly His Gly Ser Phe Gly Thr Val Phe Gln Ala Lys Cys Leu Glu Thr
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Gly Glu Thr Val Ala Ile Lys Lys Val Leu Gln Asp Lys Arg Tyr Lys
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Asn Arg Glu Leu Gln Thr Met Arg Val Leu Asp His Pro Asn Val Val
        115                 120                 125

Ala Leu Lys His Cys Phe Phe Ser Lys Thr Glu Lys Glu Glu Leu Tyr
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Leu Asn Leu Val Leu Glu Tyr Val Pro Glu Thr Ala His Arg Val Ile
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Lys His Tyr Asn Lys Met Asn Gln Arg Met Pro Leu Ile Tyr Ala Lys
                165                 170                 175

Leu Tyr Met Tyr Gln Ile Cys Arg Ala Leu Ala Tyr Ile His Asn Ser
            180                 185                 190

Ile Gly Val Cys His Arg Asp Ile Lys Pro Gln Asn Leu Leu Val Asn
        195                 200                 205

Pro His Thr His Gln Leu Lys Leu Cys Asp Phe Gly Ser Ala Lys Val
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Leu Val Lys Gly Glu Pro Asn Ile Ser Tyr Ile Cys Ser Arg Tyr Tyr
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Arg Ala Pro Glu Leu Ile Phe Gly Ala Thr Glu Tyr Thr Thr Ala Ile
                245                 250                 255

Asp Val Gly Ser Ala Gly Cys Val Leu Ala Glu Leu Leu Leu Gly Gln
            260                 265                 270

Pro Leu Phe Pro Gly Glu Ser Gly Val Asp Gln Leu Val Glu Ile Ile
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Asn Tyr Thr Glu Phe Lys Phe Pro Gln Ile Lys Ala His Pro Trp His
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Lys Ile Phe His Lys Arg Met Pro Ala Glu Ala Val Asp Leu Val Ser
325 330 335

Arg Leu Leu Gln Tyr Ser Pro Lys Leu Arg Ser Thr Ala Leu Glu Ala
340 345 350

Leu Val His Pro Phe Phe Asp Glu Leu Arg Asp Pro Asn Thr Arg Leu
355 360 365

Pro Asn Gly Arg Phe Leu Pro Pro Leu Phe Asn Phe Lys Pro His Glu
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Gly Thr Glu Xaa Gly His Ile Ile Val Thr Thr Thr Gly Gly Xaa Asn
50 55 60

Gly Xaa Pro Lys Xaa Thr Val Ser Tyr Met Ala Xaa Arg Ile Val Gly
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Gln Gly Ser Phe Gly Ile Val Phe Gln Ala Lys Phe Trp Arg Gln Gly
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<222> (1410)

<220>
<221> unsure
<222> (1416)

<400> 13
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cggttggtgt ggcaccaact tcgggtttga gagaagccag tgggcatgga gcagcaggtg 180
ttgatagatt gccagaggag atgaacgata tgaaaattag ggatgataga gaaatggaag 240
ccacagttgt tgatggcaac ggaacggaga caggacatat cattgtgact accattgggg 300
gtagaaatgg tcagcccaag cagactataa gctacatggc agagcgtgtt gtagggcatg 360
gatcatttgg agttgtcttc caggctaagt gcttggaaac cggtgaaact gtggctatca 420
aaaaggttct tcaagacaag aggtacaaga accgggagct gcaaacaatg cgccttcttg 480
accacccaaa tgtcgttgct ttgaagcact gtttcttttc aaccactgaa aaggatgaac 540
tataccttaa tttggttctc gaatatgttc ctgaaacagt taatcgggtg ataaaacatt 600
acaacaagtt taaccaaagg atgccactga tatatgtgaa actctataca taccagatct 660
ttagggcgtt atcttatatt catcgttgta ttggagtctg ccatcgggat atcaagcctc 720
aaaatctatt ggtcaatcca cacactcacc aggttaaatt atgtgacttt ggaagtgcaa 780
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ctgagctcat atttggcgca actgaatata ctacagccat tgacgtctgg tctgttggat 900
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aacttgttga gatcatcaag gttctgggca ctccaacaag ggaagagatt aagtgcatga 1020
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tccataagcg catgcctcca gaggctgttg atttggtatc aagactacta caatactccc 1140
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tgccgtttct ggcttgtaan tgtacaaaac tgaagtgttg ttcatataga atgcgngctt 1380
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<210> 14
<211> 399
<212> PRT
<213> Glycine max

<220>
<221> UNSURE
<222> (391)

<400> 14

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 1               5                  10                  15

Met Thr Ser Val Gly Val Ala Pro Thr Ser Gly Leu Arg Glu Ala Ser
            20                  25                  30

Gly His Gly Ala Ala Gly Val Asp Arg Leu Pro Glu Glu Met Asn Asp
        35                  40                  45

Met Lys Ile Arg Asp Asp Arg Glu Met Glu Ala Thr Val Val Asp Gly
    50                  55                  60

Asn Gly Thr Glu Thr Gly His Ile Ile Val Thr Thr Ile Gly Gly Arg
65                  70                  75                  80

Asn Gly Gln Pro Lys Gln Thr Ile Ser Tyr Met Ala Glu Arg Val Val
                85                  90                  95

Gly His Gly Ser Phe Gly Val Val Phe Gln Ala Lys Cys Leu Glu Thr
            100                 105                 110

Gly Glu Thr Val Ala Ile Lys Lys Val Leu Gln Asp Lys Arg Tyr Lys
        115                 120                 125

Asn Arg Glu Leu Gln Thr Met Arg Leu Leu Asp His Pro Asn Val Val
    130                 135                 140

Ala Leu Lys His Cys Phe Phe Ser Thr Thr Glu Lys Asp Glu Leu Tyr
145                 150                 155                 160

Leu Asn Leu Val Leu Glu Tyr Val Pro Glu Thr Val Asn Arg Val Ile
                165                 170                 175

Lys His Tyr Asn Lys Phe Asn Gln Arg Met Pro Leu Ile Tyr Val Lys
            180                 185                 190

Leu Tyr Thr Tyr Gln Ile Phe Arg Ala Leu Ser Tyr Ile His Arg Cys
        195                 200                 205

Ile Gly Val Cys His Arg Asp Ile Lys Pro Gln Asn Leu Leu Val Asn
    210                 215                 220

Pro His Thr His Gln Val Lys Leu Cys Asp Phe Gly Ser Ala Lys Val
225                 230                 235                 240

Leu Val Lys Gly Glu Pro Asn Ile Ser Tyr Ile Cys Ser Arg Tyr Tyr
                245                 250                 255

Arg Ala Pro Glu Leu Ile Phe Gly Ala Thr Glu Tyr Thr Thr Ala Ile
            260                 265                 270

Asp Val Trp Ser Val Gly Cys Val Leu Ala Glu Leu Leu Leu Gly Gln
        275                 280                 285
```

Pro Leu Phe Pro Gly Glu Ser Gly Val Asp Gln Leu Val Glu Ile Ile
290 295 300

Lys Val Leu Gly Thr Pro Thr Arg Glu Glu Ile Lys Cys Met Asn Pro
305 310 315 320

Asn Tyr Thr Glu Phe Lys Phe Pro Gln Ile Lys Ala His Pro Trp His
325 330 335

Lys Ile Phe His Lys Arg Met Pro Pro Glu Ala Val Asp Leu Val Ser
340 345 350

Arg Leu Leu Gln Tyr Ser Pro Asn Leu Arg Cys Thr Val Leu Asp Ala
355 360 365

Leu Asp Ala Pro Phe Pro Leu Asp Glu Phe Arg Asp Pro Asn Pro Arg
370 375 380

Leu Pro Asn Gly Pro Ile Xaa Pro Thr Thr Ile Asn Ser Asn Pro
385 390 395

<210> 15
<211> 1673
<212> DNA
<213> Triticum aestivum

<220>
<221> unsure
<222> (1349)

<400> 15
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gcagcaggat ggcgaggcgc cgtatgcgga ggggaacgac gccatgaccg gtcacatcat 180
ctccaccacc atcggcggca agaacggcga gcccaagcag acgattagct acatggcgga 240
gcgcgttgtg ggcactggtt cgtttggcat cgtctttcag gctaaatgcc tggaaaccgg 300
ggagatggtg ggcattaaga aggtactgca ggacagacgg tacaagaacc gtgagctgca 360
gcttatgcgt tcgatgatcc attccaatgt tgtctccctc aagcactgct tcttctcaac 420
cacaagtaga gatgagctgt tcctgaacct tgtcatggag tatgtcccgg agacgctata 480
ccgcgtgctt aagcactaca gtaatgccaa ccaggggatg ccgcttatct atgtcaagct 540
ttacatgtat cagctttta gagggctagc ttatgttcat actgttccag gagtttgcca 600
cagggatgtg aaaccacaaa atgttttggt tgatcctcta acccatcaag tcaagatctg 660
tgactttgga agtgcaaaag ttctggtacc tggtgaaccc aacatagcat acatatgctc 720
tcgctactat cgtgctcctg agctcatatt tggtgcaact gaatatacaa cttcaataga 780
catatggtca gctggatgtg ttcttgcaga gctacttctt ggtcagcctc tgtttccagg 840
agagactgcg gttgatcagc tagtggagat tatcaaggtt cttggtactc caacccgtga 900
ggaaattcgg tgcatgaacc ccaactatac cgagttcagg tttcctcaga ttaaggctca 960
tccttggcac aagattttcc acaagagaat gcccgctgaa gctatagatc ttgcctcccg 1020
ccttctccag tattcaccaa atctacgttg cactgctctt gatgcatgtg cacattcctt 1080
ctttgatgag ctacgtgagc cgaatgcacg cttgccgaat ggccgcccat tccctcctct 1140
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ggaacatgtt cgacggcaaa atggccccaa cttcgcccat gctgggagct aaacggggcg 1260
cgcccgcatc gcccatattt ttgtttgtcc gccatcatcg aagaatcaat ctctccccta 1320
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taaattacct gaccttggaa gaatcgttgt tgttgttgcc ggtgccggcc atgtttaagt 1440
acatggcggc acatgttggt tgagttgtta cttattatta agtaggtaag agcaatgatg 1500
taggaggtgg agacatatgt taatgctagg tctgtgacct gttttaagta catttttgta 1560
atgcttggta gtggtactgt aatgcggcaa tagctgctcc atgttttgtc ccttgtccct 1620
gatgtaaatg tcgtcgtcct gcagcaaaaa aaaaaaaaaa aaaaaaaaaa aaa 1673

<210> 16
<211> 402
<212> PRT
<213> Triticum aestivum

<400> 16

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Met Glu His Pro Ala Pro Ala Pro Glu Pro Met Leu Leu Asp Glu Gln
 1               5                  10                  15

Pro Pro Thr Ala Val Ala Cys Glu Lys Lys Gln Gln Asp Gly Glu Ala
            20                  25                  30

Pro Tyr Ala Glu Gly Asn Asp Ala Met Thr Gly His Ile Ile Ser Thr
        35                  40                  45

Thr Ile Gly Gly Lys Asn Gly Glu Pro Lys Gln Thr Ile Ser Tyr Met
    50                  55                  60

Ala Glu Arg Val Val Gly Thr Gly Ser Phe Gly Ile Val Phe Gln Ala
65                  70                  75                  80

Lys Cys Leu Glu Thr Gly Glu Met Val Gly Ile Lys Lys Val Leu Gln
                85                  90                  95

Asp Arg Arg Tyr Lys Asn Arg Glu Leu Gln Leu Met Arg Ser Met Ile
            100                 105                 110

His Ser Asn Val Val Ser Leu Lys His Cys Phe Phe Ser Thr Thr Ser
        115                 120                 125

Arg Asp Glu Leu Phe Leu Asn Leu Val Met Glu Tyr Val Pro Glu Thr
    130                 135                 140

Leu Tyr Arg Val Leu Lys His Tyr Ser Asn Ala Asn Gln Gly Met Pro
145                 150                 155                 160

Leu Ile Tyr Val Lys Leu Tyr Met Tyr Gln Leu Phe Arg Gly Leu Ala
                165                 170                 175

Tyr Val His Thr Val Pro Gly Val Cys His Arg Asp Val Lys Pro Gln
            180                 185                 190

Asn Val Leu Val Asp Pro Leu Thr His Gln Val Lys Ile Cys Asp Phe
        195                 200                 205

Gly Ser Ala Lys Val Leu Val Pro Gly Glu Pro Asn Ile Ala Tyr Ile
    210                 215                 220

Cys Ser Arg Tyr Tyr Arg Ala Pro Glu Leu Ile Phe Gly Ala Thr Glu
225                 230                 235                 240

Tyr Thr Thr Ser Ile Asp Ile Trp Ser Ala Gly Cys Val Leu Ala Glu
                245                 250                 255

Leu Leu Leu Gly Gln Pro Leu Phe Pro Gly Glu Thr Ala Val Asp Gln
            260                 265                 270

Leu Val Glu Ile Ile Lys Val Leu Gly Thr Pro Thr Arg Glu Glu Ile
        275                 280                 285
```

Arg Cys Met Asn Pro Asn Tyr Thr Glu Phe Arg Phe Pro Gln Ile Lys
290 295 300

Ala His Pro Trp His Lys Ile Phe His Lys Arg Met Pro Ala Glu Ala
305 310 315 320

Ile Asp Leu Ala Ser Arg Leu Leu Gln Tyr Ser Pro Asn Leu Arg Cys
325 330 335

Thr Ala Leu Asp Ala Cys Ala His Ser Phe Phe Asp Glu Leu Arg Glu
340 345 350

Pro Asn Ala Arg Leu Pro Asn Gly Arg Pro Phe Pro Pro Leu Phe Asn
355 360 365

Phe Lys Pro Glu Leu Ala Asn Ala Ser Pro Glu Leu Ile Asn Arg Leu
370 375 380

Val Pro Glu His Val Arg Arg Gln Asn Gly Pro Asn Phe Ala His Ala
385 390 395 400

Gly Ser

<210> 17
<211> 639
<212> PRT
<213> Zea mays

<400> 17
Met Gly Asn Thr Cys Val Gly Pro Ser Ile Thr Met Asn Gly Phe Phe
1 5 10 15

Gln Ser Val Ser Thr Ala Leu Trp Lys Thr Pro Gln Glu Gly Asp Ala
20 25 30

Leu Pro Ala Ala Ala Asn Gly Pro Gly Gly Pro Ala Gly Ala Gly Ser
35 40 45

Gln Ser Ala Leu Pro Lys Pro Ala Ser Asp Val His His Val Ala Val
50 55 60

Gln Ser Glu Ala Pro Glu Pro Val Lys Ile Ala Ala Tyr His Ser Glu
65 70 75 80

Pro Ala Pro Ala Val Arg Ser Glu Ala Pro Glu Pro Val Lys Ile Ala
85 90 95

Ala Ser His Ser Glu Pro Ala Pro Met Ala Ala Lys Pro Gly Gly Ala
100 105 110

Ala Ala Asn Ala Ser Pro Ser Pro Ser Pro Arg Pro Arg Pro Gln Val
115 120 125

Lys Arg Val Ser Ser Ala Gly Leu Leu Leu Gly Ser Val Leu Arg Arg
130 135 140

Lys Thr Glu Asn Leu Lys Asp Lys Tyr Ser Leu Gly Arg Arg Leu Gly
145 150 155 160

```
Gln Gly Gln Phe Gly Thr Thr His Leu Cys Val Glu Arg Ala Thr Gly
                165                 170                 175

Lys Glu Leu Ala Cys Lys Ser Ile Leu Lys Arg Lys Leu Gly Ser Asp
            180                 185                 190

Asp Asp Val Glu Asp Val Arg Arg Glu Ile Gln Ile Met His His Leu
        195                 200                 205

Ala Gly His Pro Ser Val Val Gly Ile Arg Gly Ala Tyr Glu Asp Ala
    210                 215                 220

Val Ala Val His Leu Val Met Glu Leu Cys Gly Gly Gly Glu Leu Phe
225                 230                 235                 240

Asp Arg Ile Val Arg Arg Gly His Tyr Thr Glu Arg Lys Ala Ala Glu
                245                 250                 255

Leu Ala Arg Val Ile Val Gly Val Val Glu Ala Cys His Ser Met Gly
            260                 265                 270

Val Met His Arg Asp Leu Lys Pro Glu Asn Phe Leu Phe Ala Asp His
        275                 280                 285

Ser Glu Glu Ala Ala Leu Lys Thr Ile Asp Phe Gly Leu Ser Ile Phe
    290                 295                 300

Phe Arg Pro Gly Gln Ile Phe Thr Asp Val Val Gly Ser Pro Tyr Tyr
305                 310                 315                 320

Val Ala Pro Glu Val Leu Lys Lys Arg Tyr Gly Pro Glu Ala Asp Val
                325                 330                 335

Trp Ser Ala Gly Val Ile Ile Tyr Ile Leu Leu Cys Gly Val Pro Pro
            340                 345                 350

Phe Trp Ala Glu Asn Glu Gln Gly Ile Phe Glu Glu Val Leu His Gly
        355                 360                 365

Arg Leu Asp Phe Glu Ser Glu Pro Trp Pro Ser Ile Ser Asp Gly Ala
    370                 375                 380

Lys Asp Leu Val Arg Arg Met Leu Val Arg Asp Pro Arg Lys Arg Leu
385                 390                 395                 400

Thr Ala His Glu Val Leu Arg His Pro Trp Val Gln Val Gly Gly Val
                405                 410                 415

Ala Pro Asp Arg Pro Leu Asp Ser Ala Val Leu Ser Arg Met Lys Gln
            420                 425                 430

Phe Ser Ala Met Asn Lys Leu Lys Lys Met Ala Leu Arg Val Ile Ala
        435                 440                 445

Glu Asn Leu Ser Glu Asp Glu Ile Ala Gly Leu Arg Glu Met Phe Lys
    450                 455                 460

Met Ile Asp Ala Asp Asn Ser Gly Gln Ile Thr Phe Glu Glu Leu Lys
465                 470                 475                 480
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Val Gly Leu Glu Lys Val Gly Ala Asn Leu Gln Glu Ser Glu Ile Tyr
485 490 495

Ala Leu Met Gln Ala Ala Asp Val Asp Asn Asn Gly Thr Ile Asp Tyr
500 505 510

Gly Glu Phe Ile Ala Ala Thr Leu His Leu Asn Lys Val Glu Arg Glu
515 520 525

Asp His Leu Phe Ala Ala Phe Gln Tyr Phe Asp Lys Asp Gly Ser Gly
530 535 540

Tyr Ile Thr Ala Asp Glu Leu Gln Val Ala Cys Glu Glu Phe Gly Leu
545 550 555 560

Gly Asp Val Gln Leu Glu Asp Leu Ile Gly Glu Val Asp Gln Asp Asn
565 570 575

Asp Gly Arg Ile Asp Tyr Asn Glu Phe Val Ala Met Met Gln Lys Pro
580 585 590

Thr Val Gly Gly Ser Arg Arg Arg Pro Ile Cys Arg Thr Ala Ser Ala
595 600 605

Ser Gly Ser Ala Ser Gly Ser Gly Arg Arg Ser Gly Trp Pro Arg Pro
610 615 620

Leu Cys Leu Trp Leu Pro Cys Cys Leu Arg Val Gly Val Asp Asp
625 630 635

<210> 18
<211> 625
<212> PRT
<213> Zea mays

<400> 18
Met Gly Gln Cys Tyr Gly Lys Ala Arg Gly Ala Ser Ser Arg Ala Asp
1 5 10 15

His Asp Ala Asp Pro Ser Gly Ala Gly Ser Val Ala Pro Pro Ser Pro
20 25 30

Leu Pro Ala Asn Gly Ala Pro Leu Pro Ala Thr Pro Arg Arg His Lys
35 40 45

Ser Gly Ser Thr Thr Pro Val His His His Gln Ala Ala Thr Pro Gly
50 55 60

Ala Ala Ala Trp Pro Ser Pro Tyr Pro Ala Gly Gly Ala Ser Pro Leu
65 70 75 80

Pro Ala Gly Val Ser Pro Ser Pro Ala Arg Ser Thr Pro Arg Arg Phe
85 90 95

Phe Lys Arg Pro Phe Pro Pro Pro Ser Pro Ala Lys His Ile Lys Ala
100 105 110

Thr Leu Ala Lys Arg Leu Gly Gly Gly Lys Pro Lys Glu Gly Thr Ile
115 120 125

```
Pro Glu Glu Gly Gly Ala Gly Ala Gly Ala Gly Ala Gly Ala Gly Ala
    130                 135                 140

Gly Ala Ala Val Gly Ala Ala Asp Ser Ala Glu Ala Asp Arg Pro Leu
145                 150                 155                 160

Asp Lys Thr Phe Gly Phe Ala Lys Asn Phe Gly Ala Lys Tyr Asp Leu
                165                 170                 175

Gly Lys Glu Val Gly Arg Gly His Phe Gly His Thr Cys Ser Ala Val
            180                 185                 190

Val Lys Lys Gly Glu His Lys Gly His Thr Val Ala Val Lys Ile Ile
        195                 200                 205

Ser Lys Ala Lys Met Thr Thr Ala Ile Ser Ile Glu Asp Val Arg Arg
    210                 215                 220

Glu Val Lys Ile Leu Lys Ala Leu Ser Gly His Asp Asn Leu Val Arg
225                 230                 235                 240

Phe Tyr Asp Ala Cys Glu Asp Ala Leu Asn Val Tyr Ile Val Met Glu
                245                 250                 255

Leu Cys Glu Gly Gly Glu Leu Leu Asp Arg Ile Leu Ala Arg Gly Gly
            260                 265                 270

Arg Tyr Thr Glu Glu Asp Ala Lys Ala Ile Ile Val Gln Ile Leu Ser
        275                 280                 285

Val Val Ala Phe Cys His Leu Gln Gly Val Val His Arg Asp Leu Lys
    290                 295                 300

Pro Glu Asn Phe Leu Phe Thr Thr Arg Asp Glu Ser Ala Pro Met Lys
305                 310                 315                 320

Leu Ile Asp Phe Gly Leu Ser Asp Phe Ile Arg Pro Asp Glu Arg Leu
                325                 330                 335

Asn Asp Ile Val Gly Ser Ala Tyr Tyr Val Ala Pro Glu Val Leu His
            340                 345                 350

Arg Ser Tyr Ser Met Glu Ala Asp Ile Trp Ser Ile Gly Val Ile Thr
        355                 360                 365

Tyr Ile Leu Leu Cys Gly Ser Arg Pro Phe Trp Ala Arg Thr Glu Ser
    370                 375                 380

Gly Ile Phe Arg Ser Val Leu Arg Ala Asp Pro Asn Phe Asp Asp Ser
385                 390                 395                 400

Pro Trp Pro Ser Val Ser Ala Glu Ala Lys Asp Phe Val Lys Arg Phe
                405                 410                 415

Leu Asn Lys Asp Tyr Arg Lys Arg Met Thr Ala Val Gln Ala Leu Thr
            420                 425                 430

His Pro Trp Leu Arg Asp Glu Gln Arg Gln Ile Pro Leu Asp Ile Leu
        435                 440                 445
```

Ile Phe Arg Leu Val Lys Gln Tyr Leu Arg Ala Thr Pro Leu Lys Arg
450 455 460

Leu Ala Leu Lys Ala Leu Ser Lys Ala Leu Ser Glu Asp Glu Leu Leu
465 470 475 480

Tyr Leu Arg Leu Gln Phe Lys Leu Leu Glu Pro Arg Asp Gly Phe Val
485 490 495

Ser Leu Asp Asn Phe Arg Thr Ala Leu Thr Arg Tyr Ser Thr Asp Ala
500 505 510

Met Arg Glu Ser Arg Val Leu Glu Phe Gln His Ala Leu Glu Pro Leu
515 520 525

Ala Tyr Arg Lys Met Asp Phe Glu Glu Phe Cys Ala Ala Ala Ile Ser
530 535 540

Pro Tyr Gln Leu Glu Ala Leu Glu Arg Trp Glu Glu Ile Ala Gly Thr
545 550 555 560

Ala Phe Gln His Phe Glu Gln Glu Gly Asn Arg Val Ile Ser Val Glu
565 570 575

Glu Leu Ala Gln Glu Leu Asn Leu Ala Pro Thr His Tyr Ser Ile Val
580 585 590

Gln Asp Trp Ile Arg Lys Ser Asp Gly Lys Leu Asn Phe Leu Gly Phe
595 600 605

Thr Lys Phe Leu His Gly Val Thr Ile Arg Gly Ser Asn Thr Arg Arg
610 615 620

His
625

<210> 19
<211> 576
<212> PRT
<213> Arabidopsis thaliana

<400> 19
Met Gly Ile Cys His Gly Lys Pro Val Glu Gln Gln Ser Lys Ser Leu
1 5 10 15

Pro Val Ser Gly Glu Thr Asn Glu Ala Pro Thr Asn Ser Gln Pro Pro
20 25 30

Ala Lys Ser Ser Gly Phe Pro Phe Tyr Ser Pro Ser Pro Val Pro Ser
35 40 45

Leu Phe Lys Ser Ser Pro Ser Val Ser Ser Ser Val Ser Ser Thr Pro
50 55 60

Leu Arg Ile Phe Lys Arg Pro Phe Pro Pro Pro Ser Pro Ala Lys His
65 70 75 80

Ile Arg Ala Phe Leu Ala Arg Arg Tyr Gly Ser Val Lys Pro Asn Glu
85 90 95

Val Ser Ile Pro Glu Gly Lys Glu Cys Glu Ile Gly Leu Asp Lys Ser
100 105 110

Phe Gly Phe Ser Lys Gln Phe Ala Ser His Tyr Glu Ile Asp Gly Glu
115 120 125

Val Gly Arg Gly His Phe Gly Tyr Thr Cys Ser Ala Lys Gly Lys Lys
130 135 140

Gly Ser Leu Lys Gly Gln Glu Val Ala Val Lys Val Ile Pro Lys Ser
145 150 155 160

Lys Met Thr Thr Ala Ile Ala Ile Glu Asp Val Ser Arg Glu Val Lys
165 170 175

Met Leu Arg Ala Leu Thr Gly His Lys Asn Leu Val Gln Phe Tyr Asp
180 185 190

Ala Phe Glu Asp Asp Glu Asn Val Tyr Ile Val Met Glu Leu Cys Lys
195 200 205

Gly Gly Glu Leu Leu Asp Lys Ile Leu Gln Arg Gly Gly Lys Tyr Ser
210 215 220

Glu Asp Asp Ala Lys Lys Val Met Val Gln Ile Leu Ser Val Val Ala
225 230 235 240

Tyr Cys His Leu Gln Gly Val Val His Arg Asp Leu Lys Pro Glu Asn
245 250 255

Phe Leu Phe Ser Thr Lys Asp Glu Thr Ser Pro Leu Lys Ala Ile Asp
260 265 270

Phe Gly Leu Ser Asp Tyr Val Lys Pro Asp Glu Arg Leu Asn Asp Ile
275 280 285

Val Gly Ser Ala Tyr Tyr Val Ala Pro Glu Val Leu His Arg Thr Tyr
290 295 300

Gly Thr Glu Ala Asp Met Trp Ser Ile Gly Val Ile Ala Tyr Ile Leu
305 310 315 320

Leu Cys Gly Ser Arg Pro Phe Trp Ala Arg Thr Glu Ser Gly Ile Phe
325 330 335

Arg Ala Val Leu Lys Ala Glu Pro Asn Phe Glu Glu Ala Pro Trp Pro
340 345 350

Ser Leu Ser Pro Glu Ala Val Asp Phe Val Lys Arg Leu Leu Asn Lys
355 360 365

Asp Tyr Arg Lys Arg Leu Thr Ala Ala Gln Ala Leu Cys His Pro Trp
370 375 380

Leu Val Gly Ser His Glu Leu Lys Ile Pro Ser Asp Met Ile Ile Tyr
385 390 395 400

Lys Leu Val Lys Val Tyr Ile Met Ser Thr Ser Leu Arg Lys Ser Ala
405 410 415

Leu Ala Ala Leu Ala Lys Thr Leu Thr Val Pro Gln Leu Ala Tyr Leu
420 425 430

Arg Glu Gln Phe Thr Leu Leu Gly Pro Ser Lys Asn Gly Tyr Ile Ser
435 440 445

Met Gln Asn Tyr Lys Thr Ala Ile Leu Lys Ser Ser Thr Asp Ala Met
450 455 460

Lys Asp Ser Arg Val Phe Asp Phe Val His Met Ile Ser Cys Leu Gln
465 470 475 480

Tyr Lys Lys Leu Asp Phe Glu Glu Phe Cys Ala Ser Ala Leu Ser Val
485 490 495

Tyr Gln Leu Glu Ala Met Glu Thr Trp Glu Gln His Ala Arg Arg Ala
500 505 510

Tyr Glu Leu Phe Glu Lys Asp Gly Asn Arg Pro Ile Met Ile Glu Glu
515 520 525

Leu Ala Ser Glu Leu Gly Leu Gly Pro Ser Val Pro Val His Val Val
530 535 540

Leu Gln Asp Trp Ile Arg His Ser Asp Gly Lys Leu Ser Phe Leu Gly
545 550 555 560

Phe Val Arg Leu Leu His Gly Val Ser Ser Arg Thr Leu Gln Lys Ala
565 570 575

<210> 20
<211> 405
<212> PRT
<213> Arabidopsis thaliana

<400> 20
Met Ala Ser Val Gly Ile Ala Pro Asn Pro Gly Ala Arg Asp Ser Thr
1 5 10 15

Gly Val Asp Lys Leu Pro Glu Glu Met Asn Asp Met Lys Ile Arg Asp
20 25 30

Asp Lys Glu Met Glu Ala Thr Val Val Asp Gly Asn Gly Thr Glu Thr
35 40 45

Gly His Ile Ile Val Thr Thr Ile Gly Gly Arg Asn Gly Gln Pro Lys
50 55 60

Gln Thr Ile Ser Tyr Met Ala Glu Arg Val Val Gly His Gly Ser Phe
65 70 75 80

Gly Val Val Phe Gln Ala Lys Cys Leu Glu Thr Gly Glu Thr Val Ala
85 90 95

Ile Lys Lys Val Leu Gln Asp Arg Arg Tyr Lys Asn Arg Glu Leu Gln
100 105 110

Thr Met Arg Leu Leu Asp His Pro Asn Val Val Ser Leu Lys His Cys
115 120 125

Phe Phe Ser Thr Thr Glu Lys Asp Glu Leu Tyr Leu Asn Leu Val Leu
130 135 140

Glu Tyr Val Pro Glu Thr Val His Arg Val Ile Lys His Tyr Asn Lys
145 150 155 160

Leu Asn Gln Arg Met Pro Leu Ile Tyr Val Lys Leu Tyr Thr Tyr Gln
165 170 175

Ile Phe Arg Ala Leu Ser Tyr Ile His Arg Cys Ile Gly Val Cys His
180 185 190

Arg Asp Ile Lys Pro Gln Asn Leu Leu Val Asn Pro His Thr His Gln
195 200 205

Val Lys Leu Cys Asp Phe Gly Ser Ala Lys Val Leu Val Lys Gly Glu
210 215 220

Pro Asn Ile Ser Tyr Ile Cys Ser Arg Tyr Tyr Arg Ala Pro Glu Leu
225 230 235 240

Ile Phe Gly Ala Thr Glu Tyr Thr Thr Ala Ile Asp Val Trp Ser Ala
245 250 255

Gly Cys Val Leu Ala Glu Leu Leu Leu Gly Gln Pro Leu Phe Pro Gly
260 265 270

Glu Ser Gly Val Asp Gln Leu Val His Ile Ile Lys Val Leu Gly Thr
275 280 285

Pro Thr Arg Glu Glu Ile Lys Cys Met Asn Pro Asn Tyr Thr Glu Phe
290 295 300

Lys Phe Pro Gln Ile Lys Ala His Pro Trp His Lys Ile Phe His Lys
305 310 315 320

Arg Met Pro Pro Glu Ala Val Asp Leu Val Ser Arg Leu Leu Gln Tyr
325 330 335

Ser Pro Asn Leu Arg Ser Ala Ala Leu Asp Thr Leu Val His Pro Phe
340 345 350

Phe Asp Glu Leu Arg Asp Pro Asn Ala Arg Leu Pro Asn Gly Arg Phe
355 360 365

Leu Pro Pro Ala Phe His Phe Lys Pro His Glu Leu Lys Gly Val Pro
370 375 380

Leu Glu Met Val Ala Lys Leu Val Pro Glu His Ala Arg Lys Gln Cys
385 390 395 400

Pro Trp Leu Gly Leu
405

<210> 21
<211> 412
<212> PRT
<213> Medicago sativa

<400> 21

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Met Met Ala Ser Gly Gly Val Ala Pro Ala Ser Gly Phe Ile Asp Lys
  1               5                  10                  15

Asn Ala Ser Ser Val Gly Val Glu Lys Leu Pro Glu Glu Met Asn Asp
             20                  25                  30

Met Lys Ile Arg Asp Asp Lys Glu Met Glu Ala Ala Thr Ile Val Asp
         35                  40                  45

Gly Asn Gly Thr Glu Thr Gly His Ile Ile Val Thr Thr Ile Gly Gly
     50                  55                  60

Lys Asn Gly Gln Pro Lys Gln Thr Ile Ser Tyr Met Ala Glu Arg Val
 65                  70                  75                  80

Val Gly His Gly Ser Phe Gly Val Val Phe Gln Ala Lys Cys Leu Glu
                 85                  90                  95

Thr Gly Glu Thr Val Ala Ile Lys Lys Val Leu Gln Asp Lys Arg Tyr
            100                 105                 110

Lys Asn Arg Glu Leu Gln Thr Met Arg Leu Leu Asp His Pro Asn Val
        115                 120                 125

Val Ser Leu Lys His Cys Phe Phe Ser Thr Thr Glu Lys Asp Glu Leu
    130                 135                 140

Tyr Leu Asn Leu Val Leu Glu Tyr Val Pro Glu Thr Val Ser Arg Val
145                 150                 155                 160

Ile Arg His Tyr Asn Lys Met Asn Gln Arg Met Pro Met Ile Tyr Val
                165                 170                 175

Lys Leu Tyr Ser Tyr Gln Ile Cys Arg Ala Leu Ala Tyr Ile His Asn
            180                 185                 190

Ser Ile Gly Val Cys His Arg Asp Ile Lys Pro Gln Asn Leu Leu Val
        195                 200                 205

Asn Pro His Thr His Gln Leu Lys Ile Cys Asp Phe Gly Ser Ala Lys
    210                 215                 220

Val Leu Val Lys Gly Glu Pro Asn Ile Ser Tyr Ile Cys Ser Arg Tyr
225                 230                 235                 240

Tyr Arg Ala Pro Glu Leu Ile Phe Gly Ala Thr Glu Tyr Thr Thr Ala
                245                 250                 255

Ile Asp Ile Trp Ser Ala Gly Cys Val Leu Gly Glu Leu Leu Leu Gly
            260                 265                 270

Gln Pro Leu Phe Pro Gly Glu Ser Gly Val Asp Gln Leu Val Glu Ile
        275                 280                 285

Ile Lys Val Leu Gly Thr Pro Thr Arg Glu Glu Ile Lys Cys Met Asn
    290                 295                 300

Pro Asn Tyr Thr Glu Phe Lys Phe Pro Gln Ile Lys Ala His Pro Trp
305                 310                 315                 320
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His Lys Ile Phe His Lys Arg Met Pro Pro Glu Ala Val Asp Leu Val
                325                 330                 335

Ser Arg Leu Leu Gln Tyr Ser Pro Asn Leu Arg Ser Thr Ala Leu Glu
            340                 345                 350

Ala Leu Val His Pro Phe Tyr Asp Asp Val Arg Asp Pro Asn Thr Arg
        355                 360                 365

Leu Pro Asn Gly Arg Phe Leu Pro Pro Leu Phe Asn Phe Lys Val Asn
    370                 375                 380

Glu Leu Lys Gly Val Pro Ala Glu Met Leu Val Lys Leu Val Pro Pro
385                 390                 395                 400

His Ala Arg Lys Gln Cys Ala Leu Phe Gly Ser Ser
                405                 410
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<210> 22
<211> 411
<212> PRT
<213> Medicago sativa

<400> 22

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Met Ala Ser Val Gly Val Ala Pro Thr Ser Gly Phe Arg Glu Val Leu
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Gly Asp Gly Glu Ile Gly Val Asp Asp Ile Leu Pro Glu Glu Met Ser
            20                  25                  30

Asp Met Lys Ile Arg Asp Asp Arg Glu Met Glu Ala Thr Val Val Asp
        35                  40                  45

Gly Asn Gly Thr Glu Thr Gly His Ile Ile Val Thr Thr Ile Gly Gly
    50                  55                  60

Arg Asn Gly Gln Pro Lys Gln Thr Ile Ser Tyr Met Ala Glu Arg Val
65                  70                  75                  80

Val Gly His Gly Ser Phe Gly Val Val Phe Gln Ala Lys Cys Leu Glu
                85                  90                  95

Thr Gly Glu Thr Val Ala Ile Lys Lys Val Leu Gln Asp Lys Arg Tyr
            100                 105                 110

Lys Asn Arg Glu Leu Gln Thr Met Arg Leu Leu Asp His Pro Asn Val
        115                 120                 125

Val Ser Leu Lys His Cys Phe Phe Ser Thr Thr Glu Lys Asp Glu Leu
    130                 135                 140

Tyr Leu Asn Leu Val Leu Glu Tyr Val Pro Glu Thr Val His Arg Val
145                 150                 155                 160

Ile Lys His Tyr Ser Lys Leu Asn Gln Arg Met Pro Met Ile Tyr Val
                165                 170                 175

Lys Leu Tyr Thr Tyr Gln Ile Phe Arg Ala Leu Ser Tyr Ile His Arg
            180                 185                 190
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Cys Ile Gly Val Cys His Arg Asp Ile Lys Pro Gln Asn Leu Leu Val
195 200 205

Asn Pro His Thr His Gln Val Lys Leu Cys Asp Phe Gly Ser Ala Lys
210 215 220

Val Leu Val Lys Gly Glu Pro Asn Ile Ser Tyr Ile Cys Ser Arg Tyr
225 230 235 240

Tyr Arg Ala Pro Glu Leu Ile Phe Gly Ala Thr Glu Tyr Thr Thr Ala
245 250 255

Ile Asp Val Trp Ser Val Gly Cys Val Leu Ala Glu Leu Leu Leu Gly
260 265 270

Gln Pro Leu Phe Pro Gly Glu Arg Gly Val Asp Gln Leu Val Glu Ile
275 280 285

Ile Lys Val Leu Gly Thr Pro Thr Arg Glu Glu Ile Lys Cys Met Asn
290 295 300

Pro Asn Tyr Thr Glu Phe Lys Phe Pro Gln Ile Lys Ala His Pro Trp
305 310 315 320

His Lys Ile Phe His Lys Arg Met Pro Ala Glu Ala Val Asp Leu Val
325 330 335

Ser Arg Leu Leu Gln Tyr Ser Pro Asn Leu Arg Cys Gln Ala Leu Asp
340 345 350

Cys Leu Thr His Pro Phe Phe Asp Glu Leu Arg Asp Pro Asn Ala Arg
355 360 365

Leu Pro Thr Gly Arg Phe Leu Pro Pro Leu Phe Asn Phe Lys Pro His
370 375 380

Glu Leu Lys Gly Val Pro Val Glu Thr Leu Met Lys Leu Val Pro Glu
385 390 395 400

His Ala Arg Lys Gln Cys Pro Phe Leu Gly Leu
405 410

<210> 23
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<400> 23
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Leu Gln Leu His Asp Gly Asp Ala Leu Lys Arg Arg Pro Glu Leu Asp
20 25 30

Ser Asp Lys Glu Met Ser Ala Ala Val Ile Glu Gly Asn Asp Ala Val
35 40 45

Thr Gly His Ile Ile Ser Thr Thr Ile Gly Gly Lys Asn Gly Glu Pro
50 55 60

Lys Gln Thr Ile Ser Tyr Met Ala Glu Arg Val Val Gly Thr Gly Ser
65 70 75 80

Phe Gly Ile Val Phe Gln Ala Lys Cys Leu Glu Thr Gly Glu Ser Val
85 90 95

Ala Ile Lys Lys Val Leu Gln Asp Arg Arg Tyr Lys Asn Arg Glu Leu
100 105 110

Gln Leu Met Arg Pro Met Asp His Pro Asn Val Ile Ser Leu Lys His
115 120 125

Cys Phe Phe Ser Thr Thr Ser Arg Asp Glu Leu Phe Leu Asn Leu Val
130 135 140

Met Glu Tyr Val Pro Glu Thr Leu Tyr Arg Val Leu Arg His Tyr Thr
145 150 155 160

Ser Ser Asn Gln Arg Met Pro Ile Phe Tyr Val Lys Leu Tyr Thr Tyr
165 170 175

Gln Ile Phe Arg Gly Leu Ala Tyr Ile His Thr Val Pro Gly Val Cys
180 185 190

His Arg Asp Val Lys Pro Gln Asn Leu Leu Val Asp Pro Leu Thr His
195 200 205

Gln Val Lys Leu Cys Asp Phe Gly Ser Ala Lys Val Leu Val Lys Gly
210 215 220

Glu Pro Asn Ile Ser Tyr Ile Cys Ser Arg Tyr Tyr Arg Ala Pro Glu
225 230 235 240

Leu Ile Phe Gly Ala Thr Glu Tyr Thr Ala Ser Ile Asp Ile Trp Ser
245 250 255

Ala Gly Cys Val Leu Ala Glu Leu Leu Leu Gly Gln Pro Leu Phe Pro
260 265 270

Gly Glu Asn Ser Val Asp Gln Leu Val Glu Ile Ile Lys Val Leu Gly
275 280 285

Thr Pro Thr Arg Glu Glu Ile Arg Cys Met Asn Pro Asn Tyr Thr Asp
290 295 300

Phe Arg Phe Pro Gln Ile Lys Ala His Pro Trp His Lys Val Phe His
305 310 315 320

Lys Arg Met Pro Pro Glu Ala Ile Asp Leu Ala Ser Arg Leu Leu Gln
325 330 335

Tyr Ser Pro Ser Leu Arg Cys Thr Ala Leu Glu Ala Cys Ala His Pro
340 345 350

Phe Phe Asn Glu Leu Arg Glu Pro Asn Ala Arg Leu Pro Asn Gly Arg
355 360 365

Pro Leu Pro Pro Leu Phe Asn Phe Lys Gln Glu Leu Gly Gly Ala Ser
370 375 380

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Met Glu Leu Ile Asn Arg Leu Ile Pro Glu His Val Arg Arg Gln Met
385                 390                 395                 400

Ser Thr Gly Leu Gln Asn Ser
                405
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